

DAFTAR PUSTAKA

- Abbas, N., Siddique, H. N., Masood, F., Shehzadi, A., Abbas, Z., & Ali, S. (2020). Production of Protease Enzyme from *Bacillus subtilis* Using Skimmed Milk. *Science International (Lahore)*, 32(2), 211-214.
- Admassu, S., & Kebede, M. (2019). Application of Antioxidants in Food Processing Industry: Options to Improve the Extraction Yields and Market Value of Natural Products. *Adv. Food Technol. Nutr. Sci*, 5, 38-49.
- Akbarian, M., Khani, A., Eghbalpour, S., & Uversky, V. N. (2022). Bioactive Peptides: Synthesis, Sources, Applications, and Proposed Mechanisms of Action. *International Journal of Molecular Sciences*, 23(3), 1445.
- Alahmad, K., Xia, W., Jiang, Q., & Xu, Y. (2022). Effect of the Degree of Hydrolysis on Nutritional, Functional, and Morphological Characteristics of Protein Hydrolysate Produced from Bighead Carp (*Hypophthalmichthys nobilis*) Using Ficin Enzyme. *Foods*, 11(9), 1320.
- Alemu, H. (2017). Review Paper on Breeding Common Bean (*Phaseolus vulgaris* L.) Genotypes for Acidic Soil Tolerance. *International Journal of Advanced Research and Publications*, 1(3), 39-46.
- Ardani, A., Rismayanti, S., & Abdillah, H. (2021). Effect of Surfactant Type Modifications, Glucose Inducer Concentrations, and Mineral Sources Towards Lipase Enzyme Activity of *Aspergillus niger* ITBCC L74 on Rice Bran Substrate. *Nusantara Science and Technology Proceedings*, 1-7.
- Ashraf, S. A., Adnan, M., Patel, M., Siddiqui, A. J., Sachidanandan, M., Snoussi, M., & Hadi, S. (2020). Fish-based Bioactives as Potent Nutraceuticals: Exploring the Therapeutic Perspective of Sustainable Food from the Sea. *Marine Drugs*, 18(5), 265.
- Asih, N. N. K., Suarya, P., Manuaba, I. B. P., & Wirajana, I. N. (2018). Hidrolisis Batang Jagung secara Enzimatik dari Tanah Hutan Mangrove. *Cakra Kimia (Indonesian E-Journal of Applied Chemistry)*, 6(2), 106-115.
- Astriany, D., Hamdani, S., & Wilianto, H. (2022, December). Produksi Enzim Protease *Bacillus altitudinis* dan *Pseudomonas citronellolis* Hasil Isolasi dari Lumpur Kubangan Babi dengan Variasi Substrat Putih Telur. In *Prosiding Seminar Nasional Diseminasi Hasil Penelitian Program Studi S1 Farmasi* (Vol. 2, No. 1).
- Attia, A. M. M., Sayed, A. M., Ibrahim, F. A., Mohammed, A. S., & El-Alfy, M. S. (2011). Effects of Antioxidant Vitamins on Some Hemoglobin Properties and Erythrocytes in Homozygous Beta-thalassemia. *Romanian J Biophys*, 21, 116.

- Audu, S. S., & Aremu, M. O. (2011). Effect of Processing on Chemical Composition of Red Kidney Bean (*Phaseolus vulgaris* L.) Flour. *Pakistan Journal of Nutrition*, 10(11), 1069-1075.
- Baliyan, S., Mukherjee, R., Priyadarshini, A., Vibhuti, A., Gupta, A., Pandey, R. P., & Chang, C. M. (2022). Determination of Antioxidants by DPPH Radical Scavenging Activity and Quantitative Phytochemical Analysis of *Ficus religiosa*. *Molecules*, 27(4), 1326.
- Bendary, E., Francis, R. R., Ali, H. M. G., Sarwat, M. I., & El Hady, S. (2013). Antioxidant and Structure Activity Relationships (SARs) of Some Phenolic and Anilines Compounds. *Annals of Agricultural Sciences*, 58(2), 173-181.
- Bkhairia, I., Ben Slama Ben Salem, R., Nasri, R., Jridi, M., Ghorbel, S., & Nasri, M. (2016). In-vitro Antioxidant and Functional Properties of Protein Hydrolysates from Golden Grey Mullet Prepared by Commercial, Microbial and Visceral Proteases. *Journal of Food Science and Technology*, 53, 2902-2912.
- Brahmanti, A. A., Martati, E., & Wardani, A. K. (2021, November). Exploring Cellulolytic Microorganisms from Coffee Industry By-products and Their Enzyme Properties. In *IOP Conference Series: Earth and Environmental Science* (Vol. 924, No. 1, p. 012075).
- Canti, M., Murdiati, A., & Naruki, S. (2021). Quality Characteristics of Chicken Sausages Using a Combination of Jack Bean (*Canavalia ensiformis* L.) and Soy Protein Isolate as a Binder. *Food Research*, 5(3), 249-261.
- Chakrabarti, S., Guha, S., & Majumder, K. (2018). Food-derived Bioactive Peptides in Human Health: Challenges and Opportunities. *Nutrients*, 10(11), 1738.
- Chalamaiah, M., Kumar, B., Hemalatha, R., & Jyothirmayi, T. (2012). Fish Protein Hydrolysates: Proximate Composition, Amino Acid Composition, Antioxidant Activities and Applications: a Review. *Food Chemistry*, 135(4), 3020-3038.
- Cupp-Enyard, C. (2008). Sigma's Non-specific Protease Activity Assay-Casein as a Substrate. *Journal of Visualized Experiments*, (19), e899.
- Daliri, E. B. M., Oh, D. H., & Lee, B. H. (2017). Bioactive Peptides. *Foods*, 6(5), 32.
- de Fátima Garcia, B., de Barros, M., & de Souza Rocha, T. (2020). Bioactive Peptides from Beans with the Potential to Decrease the Risk of Developing Noncommunicable Chronic Diseases. *Critical Reviews in Food Science and Nutrition*, 61(12), 2003-2021.
- Deeth, H. C. (2021). Heat-induced Inactivation of Enzymes in Milk and Dairy Products. A review. *International Dairy Journal*, 121, 105104.

- Dupont, D., Croguennec, T., & Pochet, S. (2018). *Reference Module in Food Science*. Massachusetts: Academic Press.
- Efendi, Y., Yusra, Y., & Efendi, V. O. (2017). Optimasi Potensi Bakteri *Bacillus subtilis* sebagai Sumber Enzim Protease. *Akuatika Indonesia*, 2(1), 87-94.
- Elisya, Y., Cartika, H., & Rizkiana, A. (2017). Antioxidant Activity and Total Phenolic Content of Date Palms Syrup (*Phoenix dactylifera* L.). *SANITAS: Jurnal Teknologi dan Seni Kesehatan*, 8(1), 63-71.
- Engelking, L. (2010). *Textbook of Veterinary Physiological Chemistry*. Massachusetts: Academic Press.
- Fadiyah, I., Lestari, I., & Victory, S. (2019). Antioxidant Activity Test for Rukam Fruit (*Flacourtia rukam*) Of Maseration Extract. *Stannum: Jurnal Sains dan Terapan Kimia*, 1(1), 14-19.
- Febriyani, N., Amalia, I., Anggraeni, I., & Nugraha, G. (2019). Study of Hemoglobin Levels on Hemolysis Sample. *Indonesian Journal of Medical Laboratory Science and Technology*, 1(2), 74-79.
- Fitriyana, N. I. (2015). Peptida Bioaktif dari Biji Kakao (*Theobroma cacao* L.) Inferior (*Pepticocoa*) sebagai Ingridien Pangan Fungsional Antikolesterol. *Seminar Nasional PATPI*, 75.
- Ginting, T. B., Karnila, R., & Edison, E. The Use of Different pH Values on the Isoelectric Point of the Protein Isolates Mudskipper Fish (*Periophthalmus minutus*). *Jurnal Online Mahasiswa (JOM) Bidang Perikanan dan Ilmu Kelautan*, 6(1), 1-12.
- Gusnadi, B., Putri, I., Mulia, & Irdawati. (2022). Potensi Enzim Protease yang Dihasilkan oleh *Bacillus subtilis* sebagai Produk Biodeterge. In *Prosiding Seminar Nasional Biologi*, 1(2), 1066-1069.
- Haedar, N., Natsir, H., Fahrudin., dan Aryanti, W. (2013). Produksi dan Karakterisasi Enzim Kitinase dari Bakteri Kitinolitik asal Kerang *Anadara granosa*. *Jurnal Ilmu Alam dan Lingkungan*, 26(4), 1–37.
- Hashmi, S., Iqbal, S., Ahmed, I., & Janjua, H. A. (2022). Production, Optimization, and Partial Purification of Alkali-thermotolerant Proteases from Newly Isolated *Bacillus subtilis* S1 and *Bacillus amyloliquefaciens* KSM12. *Processes*, 10(6), 1050.
- Hasibuan, H. A. (2022). Hidrolisat Protein Sebagai Peptida Bioaktif dari Bungkil Inti Sawit dan Fungsi Biologinya. *WARTA Pusat Penelitian Kelapa Sawit*, 27(1), 29-40.
- He, R., Girgih, A. T., Malomo, S. A., Ju, X., & Aluko, R. E. (2013). Antioxidant Activities Of Enzymatic *Rapeseed* Protein Hydrolysates and the Membrane Ultrafiltration Fractions. *Journal of Functional Foods*, 5(1), 219-227.

- Herasari, D., Salsabilla, A. R., Parwathi, I., Laila, A., Mulyono, M., & Suharso, S. (2022). Karakterisasi Enzim Protease dari Bakteri *Klebsiella sp.* Indigen Tanah di Bandar Lampung. *Analit: Analytical and Environmental Chemistry*, 7(1), 35-53.
- Heristyara, R., Badruzsaufari, B., & Susilawati, I. O. (2019). Efek Suhu Terhadap Aktivitas Spesifik Enzim Pereduksi Cr (VI) oleh *Bacillus cereus* isolat AB13 dari Tanah Serpentin. In *Prosiding Seminar Nasional Lingkungan Lahan Basah* (Vol. 4, No. 1, pp. 157-162).
- Higa, F. A., Boyd, L., Sopiwnyk, E., & Nickerson, M. T. (2022). Effect of Particle Size, Flour: Water Ratio and Type of Pulse on the Physicochemical and Functional Properties of Wet Protein Extraction. *Cereal Chemistry*, 99(5), 1049-1062.
- Ibrahim, E. S. K., & Ghani, M. A. (2020). The Effect of Enzymatic Hydrolysis on the Antioxidant Activities and Amino Acid Profiles of Defatted Chia (*Salvia hispanica* L.) Flour. *Food Research*, 4(4), 38-50.
- Izuchukwu, A. & Folarin, A. (2013). Physical Properties of African Kidney Bean (*Phaseolus vulgaris* L.) and Their Processing Impact. *Food Biology*, 2(2), 18-23.
- Jara, A. M. R., Liggieri, C. S., & Bruno, M. A. (2018). Preparation of Soy Protein Hydrolysates with Antioxidant Activity by Using Peptidases from Latex of *Maclura pomifera* Fruits. *Food Chemistry*, 264, 326-333.
- Jawetz, E., Melnick, J. L., Adelberg, E. A., Brooks, G. F., Butel, J. S., & Ornston, L. N. (2005). *Mikrobiologi Kedokteran*. Jakarta: EGC.
- Jaziri, A. A., Sukoso, F. M., & Firdaus, M. (2017). Karakteristik Protease dari Ekstrak Kasar Khamir Laut dan Aktivasnya dalam Menghidrolisis Protein Ikan Rucah. *Journal of Fisheries and Marine Science*, 1(2), 78-87.
- Kambabazi, M. R., Okoth, M. W., Ngala, S., Njue, L., & Vasanthakalam, H. (2021). Evaluation of Nutrient Content in Red Kidney Beans, Amaranth Leaves, Sweet Potato Roots and Carrots Cultivated in Rwanda. *African Journal of Food, Agriculture, Nutrition and Development*, 21(4), 17801-17814.
- Karnila, R., Ilham, D., & Sidauruk, S. W. (2020). Utilization of Papain Enzymes in the Production of Protein Hydrolysates of Yellow Pike Conger (*Congresox talabon*). *Aquaculture, Aquarium, Conservation & Legislation*, 13(3), 1285-1291.
- Klompong, V., Benjakul, S., Kantachote, D., & Shahidi, F. (2007). Antioxidative Activity and Functional Properties of Protein Hydrolysate of Yellow Stripe Trevally (*Selaroides leptolepis*) as Influenced by The Degree Of Hydrolysis and Enzyme Type. *Food Chemistry*, 102(4), 1317-1327.

- Kornet, R., Roozalipour, S. L., Venema, P., van der Goot, A. J., Meinders, M. B., & Van der Linden, E. (2022). Coacervation in Pea Protein Solutions: The Effect of pH, Salt, and Fractionation Processing Steps. *Food Hydrocolloids*, 125, 107379.
- Krohn, R. I. (2001). The Colorimetric Detection and Quantitation of Total Protein. *Current Protocols in Food Analytical Chemistry*, 00(1), B1.1.1–B1.1.28.
- Kuspriyantari, J. N. (2021). Uji Aktivitas Antioksidan Protein Hidrolisat Susu Kambing Etawa Hasil Hidrolisis oleh Protease dari *Bacillus subtilis* B298. *Skripsi*. Purwokerto: Universitas Jenderal Soedirman.
- Kusumah, S. H., Andoyo, R., & Rialita, T. (2020). Isolation and Characterization of Red Bean and Green Bean Protein Using The Extraction Method and Isoelectric pH. *SciMedicine Journal*, 2(2), 77-85.
- Kusumah, S. H., Andoyo, R., & Rialita, T. (2021). Isolasi Protein Kacang Merah dan Kacang Hijau Menggunakan Metode Asam Basa dikombinasikan dengan Proses Enzimatis. *Jurnal Teknologi Dan Industri Pangan*, 32(2), 157-168.
- Larrán, B., López-Alonso, M., Miranda, M., Pereira, V., Rigueira, L., Suárez, M. L., & Herrero-Latorre, C. (2022). Measuring haemolysis in cattle serum by direct UV-Vis and RGB digital image-based methods. *Scientific Reports*, 12(1), 13523.
- Lestari, P., & Suyata. (2020). Aktivitas Antioksidan Protein Hidrolisat dari Kasein Susu Kambing Etawa Hasil Hidrolisis Bromelin dari Daun Nanas Madu. *Jurnal Gizi dan Pangan Soedirman*, 4(1), 1-13.
- Lestari, P., Prihatiningsih, N., & Djatmiko, H. A. (2017). Partial Biochemical Characterization of Crude Extract Extracellular Chitinase Enzyme from *Bacillus subtilis* B298. In *IOP Conference Series: Materials Science and Engineering*, 172(1).
- Lestari, P., Suyata, I., Kuspriyantari, J. N., & Sari, L. Y. (2021). Hidrolisis Protein Susu Kambing Etawa Berpotensi Antioksidan dengan Enzim Protease dari *Bacillus subtilis* B298. In *Prosiding Seminar Nasional dan Call for Papers "Pengembangan Sumber Daya Perdesaan dan Kearifan Lokal Berkelanjutan XI"*, 11(1).
- Lowry, O. H., Rosebrough, N. J., Farr, A. L., & Randall, R. J. (1951). Protein Measurement with the Folin Phenol Reagent. *Journal of Biological Chemistry*, 193, 265-275.
- Madigan M. T., Martinko, J. M., & Parker, J. (2006). *Brock Biology of Microorganisms*. 10th ed. New Jersey: Prentice-Hall Inc.

- Manaargadoo-Catin, M., Ali-Cherif, A., Pougna, J. L., & Perrin, C. (2016). Hemolysis by surfactants: A review. *Advances in Colloid and Interface Science*, 228, 1-16.
- Manalu, R. T. (2017). Isolasi dan Karakterisasi Bakteri Pendegradasi Hidrokarbon Asal Indonesia. *Sainstech Farma*, 10(2), 23-28.
- Manonmani, D., Bhol, S., & Bosco, S. J. D. (2014). Effect of Red Kidney Bean (*Phaseolus vulgaris* L.) Flour on Bread Quality. *Open Access Libr. J*, 1, 1-6.
- Marmon, S. (2012). Protein Isolation from Herring (*Clupea harengus*) Using the pH-Shift Process—Protein Yield, Protein Isolate Quality and Removal of Food Contaminants. *Thesis*. Sweden: Chalmers Tekniska Hogskola.
- Martin, N. C., Pirie, A. A., Ford, L. V., Callaghan, C. L., McTurk, K., Lucy, D., & Scrimger, D. G. (2006). The Use of Phosphate Buffered Saline for the Recovery of Cells and Spermatozoa from Swabs. *Science & justice: journal of the Forensic Science Society*, 46(3), 179-184.
- Martínez-Medina, G., Barragán, A., Ruiz, H., Ilyina, A., Martínez Hernández, J., Rodríguez-Jasso, R., Hoyos-Concha, J., & Aguilar-González, C. (2019). *Fungal Proteases and Production of Bioactive Peptides for the Food Industry*. In *Enzymes in Food Biotechnology*. Amsterdam: Elsevier.
- Masengi, K. I. E. G., Siampa, J. P., & Tallei, T. E. (2020). Penyalutan Bakteri Asam Laktat Hasil dari Fermentasi Kulit Buah Nanas (*Ananas comosus*) dengan Pewarna Bunga Telang (*Clitoria ternatea*). *Jurnal Bios Logos*, 10(2), 86-92.
- Medhe, S., Jain, S., & Anal, A. K. (2019). Effects of Sprouting and Cooking Processes on Physicochemical and Functional Properties of Moth Bean (*Vigna aconitifolia*) Seed and Flour. *Journal of Food Science and Technology*, 56(4), 2115-2125.
- Mesdaghinia, A., Pourpak, Z., Naddafi, K., Nodehi, R. N., Alizadeh, Z., Rezaei, S., Mohammadi, A., & Faraji, M. (2019). An In Vitro Method to Evaluate Hemolysis of Human Red Blood Cells (RBCs) Treated by Airborne Particulate Matter (PM10). *MethodsX*, 6, 156-161.
- Mina, K., Jinbum, S., & Youngjoong, W. (2016). Identification of *Bacillus subtilis* FBL-1, a Protease-producing Microorganism Newly Isolated from Soil. *Korean Journal of Microbiology and Biotechnology*, 44 (2), 185-193.
- Molyneux, P. (2004). The Use of the Stable Free Radical Diphenylpicrylhydrazyl (DPPH) for estimating Antioxidant Activity. *Journal Science of Technology*, 26(2), 211-219.
- Mótyán, J., Tóth, F., and Tozsér, J. (2013). Research Applications of Proteolytic Enzymes in Molecular Biology. *Biomolecules*, 3, 923-942.

- Muis, A. (2006). Biomass Production and Formulation of *Bacillus subtilis* for Biological Control. *Indonesian Journal of Agricultural Science*, 7, 51-56.
- Mumpuni, N., Francisca Romana, S. S., Cherlin, N. L., & Junus, J. G. (2021). Pengaruh Pemberian Vitamin C dan E Terhadap Laju Hemolisis Selama Penyimpanan Darah Donor. In *Prosiding Seminar Nasional Multidisiplin Ilmu* (Vol. 3, No. 1, pp. 36-40).
- Muniaraj, M., Paramasivan, R., & Arunachalam, N. (2010). Glass Capping of Bacterial Culture Flasks. *Journal of Bacteriology and Virology*, 40(4), 213-217.
- Munteanu, I. G., & Apetrei, C. (2021). Analytical Methods Used in Determining Antioxidant Activity: A Review. *International Journal of Molecular Sciences*, 22(7), 3380.
- Najafi, M. F., Deobagkar, D., & Deobagkar, D. (2005). Potential Application of Protease Isolated from *Pseudomonas aeruginosa* PD100. *Electronic Journal of Biotechnology*, 8(2), 79-85.
- Nasution, P. A., Batubara, R., & Surjanto, S. (2015). Tingkat Kekuatan Antioksidan Dan Kesukaan Masyarakat Terhadap Teh Daun Gaharu (*Aquilaria Malaccensis Lamk*) Berdasarkan Pohon Induksi dan Non-induksi. *Peronema Forestry Science Journal*, 4(1), 10-21. Suparmi 2020
- Natsir, H., Rutu I., & Arfah R. (2015). Production of protease enzyme from bacteria in hot spring of South Sulawesi, *Bacillus licheniformis* Hsa3-1a. *Marina Chimica Acta*, 16(1).
- Nirmala, D., Yudha, P., & Cahyanto, D. (2021, February). The Effect of pH and Incubation Time on Rude Protease Enzymes Activity of *Bacillus mycoides* from Anchovy Isolates (*Stolephorus sp.*). In *IOP Conference Series: Earth and Environmental Science* (Vol. 679, No. 1, p. 012075).
- Nurhidayanti, N. (2022). Perbandingan Media Alternatif Kacang Kedelai dan Media Nutrient Agar Terhadap Pertumbuhan Bakteri *Staphylococcus aureus*. *Indobiosains*, 47-53.
- Oda, K. (2012). New Families of Carboxyl Peptidases: Serine-carboxyl Peptidases and Glutamic Peptidases. *The Journal of Biochemistry*, 151(1), 13-25.
- Oktora, A. L. (2020). Karakterisasi Protease dari Bakteri *Bacillus subtilis* B1 dan Uji Kemampuan Hidrolisis Protein Susu Kambing. *Skripsi*. Purwokerto: Universitas Jenderal Soedirman.
- Olayinka, E. T., Kehinde, S. A., & Olajide, A. T. (2023). Rutin Positively Modulates Butachlor-Induced Testicular Oxidative Stress in Murine Models. *Biomed J Sci & Tech Res*, 48(4).

- Otroshi, B., Anvari, M., & Shariarinour, M. (2014). Study on Activity and Stability of Proteases from *Bacillus sp.* Produced by Submerged fermentation. *Int. J. Adv. Biol. Biom. Res.*, 2(7), 2283-2287.
- Peixoto, J. A. B., Álvarez-Rivera, G., Alves, R. C., Costa, A. S., Machado, S., Cifuentes, A., Ibáñez, E. & Oliveira, M. B. P. (2021). Comprehensive Phenolic and Free Amino Acid Analysis of Rosemary Infusions: Influence on the Antioxidant Potential. *Antioxidants*, 10(3), 500.5.
- Piñuel, L., Vilcacundo, E., Boeri, P., Barrio, D., Morales, D., Pinto, A., Moran, R., Samaniego, I., & Carrillo, W. (2019). Extraction of Protein Concentrate from Red Bean (*Phaseolus vulgaris L.*): Antioxidant Activity and Inhibition of Lipid Peroxidation. *Journal of Applied Pharmaceutical Science*, 9, 45-58.
- Pizzino, G., Irrera, N., Cucinotta, M., Pallio, G., Mannino, F., Arcoraci, V., Squadrito, F., Altavilla, D., & Bitto, A. (2017). Oxidative Stress: Harms and Benefits for Human Health. *Oxidative Medicine and Cellular Longevity*, 2017.
- Prastika, H. H., Ratnayani, K., Puspawati, N. M., & Laksmiwati, A. A. I. A. M. (2019). Penggunaan Enzim Pepsin untuk Produksi Hidrolisat Protein Kacang Gude (*Cajanus cajan (L.) Millsp.*) yang Aktif Antioksidan. *Cakra Kimia*, 7(2), 180-188.
- Preedy, V. R., & Watson, R. R. (Eds.). (2020). *Nuts and Seeds in Health and Disease Prevention*. Massachusetts: Academic press.
- Prihanto, A. A., Timur, H. D. L., Jaziri, A. A., Nurdiani, R., & Pradarameswari, K. A. (2018). Isolasi dan Identifikasi Bakteri Endofit Mangrove *Sonneratia alba* Penghasil Enzim Gelatinase dari Pantai Sendang Biru, Malang, Jawa Timur. *Indonesia Journal of Halal*, 1(1), 31-42.
- Prihatiningsih, N., Arwiyanto, T., Hadisutrisno, B., & Widada, J. (2020). Characterization of *Bacillus spp.* from the Rhizosphere of Potato Granola Varieties as an Antibacterial Against *Ralstonia solanacearum*. *Biodiversitas Journal of Biological Diversity*, 21(9), 4199-4204.
- Purkan, P. H., & Sumarsih, S. (2015). Produksi Enzim Selulase dari *Aspergillus niger* menggunakan Sekam Padi dan Ampas Tebu sebagai Induser. *Jurnal Ilmu Dasar*, 16(2), 95-102.
- Puspawati, N. M., Dewi, P. P., Bogoriani, N. W., & Ariati, N. K. (2020). Produksi Hidrolisat Protein Antioksidan melalui Hidrolisis Enzimatik Protein Kulit Ayam Broiler dengan Enzim Papain. *Jurnal Kimia*, 14(2), 206-212.
- Rahmawati, R., Muflihunna, A., & Sarif, L. M. (2015). Analisis Aktivitas Antioksidan Produk Sirup Buah Mengkudu (*Morinda Citrifolia L.*) dengan Metode DPPH. *Jurnal Fitofarmaka Indonesia*, 2(2), 97-101.

- Rahmi, H., Ariyanti, R. P., & Wulandari, D. (2020). Analisis Hasil Fraksinasi Protease dan Lipase yang Berasal dari Saluran Pencernaan Udang Vaname (*Litopenaeus vannamei*). *Jurnal Bioteknologi & Biosains Indonesia (JBBI)*, 7(2), 194-202.
- Rajashekaraiah, V., Pallavi, M., Choudhary, A., Bhat, C., Banerjee, P., Laavanyaa, S., & Nithindran, S. (2022). Reactive Oxygen Species and Antioxidant Interactions in Erythrocytes. *IntechOpen*. doi: 10.5772/intechopen.107544.
- Ramachandralu, K. (2010). *Medical and Healthcare Textiles*. Sawston: Woodhead Publishing.
- Rastuti, U., & Purwati, P. (2012). Uji Aktivitas Antioksidan Ekstrak Daun Kalba (*Albizia Falcataria*) Dengan Metode DPPH (*1,1-Difenil-2-Pikrilhidrazil*) dan Identifikasi Senyawa Metabolit Sekundernya. *Molekul*, 7(1), 33-42.
- Ratnayani, K., Juwarni, A. A. S., Laksmiwati, A. M., & Dewi, I. G. K. S. P. (2015). Uji Aktivitas Protease Getah Labu Siam dan Talas serta Perbandingannya terhadap Getah Pepaya. *Jurnal Kimia*, 9(2), 147-152.
- Redmile-Gordon, M. A., Armenise, E., White, R. P., Hirsch, P. R., & Goulding, K. W. T. (2013). A Comparison of Two Colorimetric Assays, based upon Lowry and Bradford Techniques, to Estimate Total Protein in Soil Extracts. *Soil Biology and Biochemistry*, 67, 166-173.
- Renneberg, R., & Loroch, V. (2016). *Biotechnology for Beginners*. Massachusetts: Academic Press.
- Rini, D. C. P., Zaenab, S., Hadi, S., & Miharja, F. J. (2019, May). The Quality of Ettawa Crossbreed Sperm: The Treatment with a Combination of Cryoprotectant in Tris Diluents. In *IOP Conference Series: Earth and Environmental Science* (Vol. 276, No. 1, p. 012047).
- Rivero-Cruz, J. F., Granados-Pineda, J., Pedraza-Chaverri, J., Pérez-Rojas, J. M., Kumar-Passari, A., Diaz-Ruiz, G., & Rivero-Cruz, B. E. (2020). Phytochemical Constituents, Antioxidant, Cytotoxic, and Antimicrobial Activities of the Ethanolic Extract of Mexican Brown Propolis. *Antioxidants*, 9(1), 70.
- Rizaldi, R., Setyantini, W. H., & Sudarno, S. (2018). Isolasi dan Karakterisasi Bakteri Proteolitik yang Berasosiasi dengan Lamun (*Enhalus acoroides*) di Pantai Bama, Taman Nasional Baluran, Situbondo, Jawa Timur. *Jurnal Ilmiah Perikanan dan Kelautan*, 10(1), 8-14.
- Robinson, P. K. (2015). *Enzymes: Principles and Biotechnological Applications. Essays in Biochemistry*, 59, 1.
- Rodríguez-Ramírez, J., Méndez-Lagunas, L. L., López-Ortiz, A., Muñiz-Becerá, S., & Nair, K. (2021). Solar Drying of Strawberry Using Polycarbonate with

UV Protection and Polyethylene Covers: Influence on Anthocyanin and Total Phenolic Content. *Solar Energy*, 221, 120-130.

Rosida, D. F., Priyanto, A. D., & Putra, A. Y. T. (2021). Effects of Papain Concentration and Hydrolysis Time on Degree of Hydrolysis and Glutamic Acid Content of Apple Snail Hydrolysate. *Nusantara Science and Technology Proceedings*, 17-21.

Rutherford, S. M. (2010). Methodology for Determining Degree of Hydrolysis of Proteins in Hydrolysates: A Review. *Journal of AOAC International*, 93(5), 1515-1522.

Sæbø, I. P., Bjørås, M., Franzyk, H., Helgesen, E., & Booth, J. A. (2023). Optimization of the Hemolysis Assay for the Assessment of Cytotoxicity. *International Journal of Molecular Sciences*, 24(3), 2914.

Sandberg, A. S. (2011). Developing Functional Ingredients: A Case Study of Pea Protein. In *Functional foods* (pp. 358-382). Woodhead Publishing.

Sari, A. N. (2016). Berbagai Tanaman Rempah Sebagai Sumber Antioksidan Alami. *Elkawnie: Journal of Islamic Science and Technology*, 2(2), 203-212.

Sari, S. A., Putri, R., Suparmin, S., & Astuti, W. (2014). Ekstraksi Dedak Padi sebagai Pengayaan Sumber Makanan Berprotein Tinggi di Sumatera Barat. In *Pekan Ilmiah Mahasiswa Nasional Program Kreativitas Mahasiswa-Penelitian 2014*. Indonesian Ministry of Research, Technology and Higher Education.

Sarker, A., Chakraborty, S., & Roy, M. (2020). Dark Red Kidney Bean (*Phaseolus vulgaris L.*) Protein Hydrolysates Inhibit the Growth of Oxidizing Substances in Plain Yogurt. *Journal of Agriculture and Food Research*, 2, 100062.

Scanes, C. G. (2022). Quantitative Morphometric, Physiological, and Metabolic Characteristics of Chickens and Mallards for Physiologically Based Kinetic Model Development: Chapter 17-Blood. *Frontiers in Physiology*, 13, 858283.

Setiawan, A. A., Safitri, M., Armiyani, D. T., Herianto, G., & Marwanta, E. (2021). Formulation and Antioxidant Effectivity Test of Single Bulb Black Garlic Lotion with DPPH Method (1,1-diphenyl-2-picrylhydrazyl). In *4th International Conference on Sustainable Innovation 2020-Health Science and Nursing (ICoSIHSN 2020)* (pp. 1-7). Atlantis Press.

Shaikh, I. A., Turakani, B., Malpani, J., Goudar, S. V., Mahnashi, M. H., Al-Serwi, R. H., Ghoneim, M., El-Sherbiny, M., Mannasaheb, B., Alsaikhan, F., Sindagimath, V., Khan, A., Muddapur, U., Azzouz, S., Mohammed, T., & Iqbal, S. S. (2023). Extracellular Protease Production, Optimization, and

Partial Purification from *Bacillus nakamurai* PL4 and its Applications. *Journal of King Saud University-Science*, 35(1), 102429.

- Sharma, M., Gat, Y., Arya, S., Kumar, V., Panghal, A., & Kumar, A. (2019). A Review on Microbial Alkaline Protease: an Essential Tool for Various Industrial Approaches. *Industrial Biotechnology*, 15(2), 69-78.
- Sharma, S., Kaur, M., Goyal, R., & Gill, B. S. (2014). Physical Characteristics and Nutritional Composition of Some New Soybean (*Glycine max* (L.) Merrill) Genotypes. *Journal of Food Science and Technology*, 51(3), 551–557.
- Stockigt, J. R., Collins, R. D., & Biglieri, E. G. (1971). Determination of Plasma Renin Concentration by Angiotensin I Immunoassay: Diagnostic Import of Precise Measurement of Subnormal Renin in Hyperaldosteronism. *Circulation Research*, 28, II-175.
- Subroto, E., Lembong, E., Filianty, F., Indiarto, R., Primalia, G., Putri, M. S. K. Z., Theodora, H., & Junar, S. (2020). The Analysis Techniques Of Amino Acid And Protein In Food And Agricultural Products. *Int. J. Sci. Technol. Res.*, 9(10), 29-36.
- Sukweenadhi, J., Setiawan, F., Yunita, O., Kartini, K., & Avanti, C. (2020). Antioxidant Activity Screening of Seven Indonesian Herbal Extract. *Biodiversitas*, 21(5), 2062-2067.
- Suloi, A. N. F., Mahendradatta, M., Laga, A., & Suloi, A. F. (2021). Effect of Maltodextrin Addition on the Preparation of Lipase from *Coconut haustorium*. In *IOP Conference Series: Earth and Environmental Science* (Vol. 733, No. 1, p. 012136).
- Suparmi, Effendi, I., Nursyirwani, Dewita, & Sidauruk, S. (2020). The Potential of Hydrolyzed, Concentrated, and Isolated Protein from *Acetes erythraeus* as Natural Antioxidant. *Aquaculture, Aquarium, Conservation & Legislation*, 13(3), 1292-1299.
- Susiloningrum, D., & Sari, D. E. M. (2021). Uji Aktivitas Antioksidan dan Penetapan Kadar Flavonoid Total Ekstrak Temu Mangga (*Curcuma mangga* Valetton & Zijp) dengan Variasi Konsentrasi Pelarut. *Cendekia Journal of Pharmacy*, 5(2), 117-127.
- Syed, M. B., & Erumalla, V. (2020). Factors like Dilution and Mixing Influence Enzymatic Reactions. *Mapana Journal of Sciences*, 19(4), 31-35.
- Tazkiah, N. P., Rosahdi, T. D., & Supriadin, A. (2017). Isolasi dan Karakterisasi Enzim Amilase dari Biji Nangka (*Artocarpus heterophillus*). *Al Kimiya: Jurnal Ilmu Kimia dan Terapan*, 4(1), 17-22.
- Techinamuti, N. & Pratiwi, R. (2018). Metode Analisis Kadar Vitamin C. *Farmaka*, 16(2).

- Thaha, A., Wang, B. S., Chang, Y. W., Hsia, S. M., Huang, T. C., Shiau, C. Y., Hwang, D., & Chen, T. Y. (2021). Food-derived Bioactive Peptides with Antioxidative Capacity, Xanthine Oxidase and Tyrosinase Inhibitory Activity. *Processes*, 9(5), 747.
- Umaña, R. (1968). Reevaluation of the Method of Kunitz for the Assay of Proteolytic Activities in Liver and Brain Homogenates. *Analytical Biochemistry*, 26(3), 430-438.
- von Petersdorff-Campen, Kai & Schmid Daners, Marianne. (2022). Hemolysis Testing In Vitro: A Review of Challenges and Potential Improvements. *ASAIO Journal*, 68(1), 3-13.
- Wahlström, R. M., & Suurnäkki, A. (2015). Enzymatic Hydrolysis of Lignocellulosic Polysaccharides in the Presence of Ionic Liquids. *Green Chemistry*, 17(2), 694-714.
- Wahyuningsih, N., & Zulaika, E. (2019). Perbandingan Pertumbuhan Bakteri Selulolitik pada Media *Nutrient Broth* dan *Carboxy Methyl Cellulose*. *Jurnal Sains dan Seni ITS*, 7(2), 36-38.
- Wang, L. S., Huang, J. C., Chen, Y. L., Huang, M., & Zhou, G. H. (2015). Identification and Characterization of Antioxidant Peptides from Enzymatic Hydrolysates of Duck Meat. *Journal of Agricultural and Food Chemistry*, 63(13), 3437-3444.
- Wang, L., Fan, D., Chen, W., & Terentjev, E. M. (2015). Bacterial Growth, Detachment and Cell Size Control on Polyethylene Terephthalate Surfaces. *Scientific reports*, 5(1), 15159.
- Wu, H. C., Chen, H. M., & Shiau, C. Y. (2003). Free Amino Acids and Peptides as Related to Antioxidant Properties in Protein Hydrolysates of Mackerel (*Scomber austriasicus*). *Food Research International*, 36(9-10), 949-957.
- Xiang, M., Kang, Q., & Zhang, D. (2020). Advances on Systems Metabolic Engineering of *Bacillus subtilis* as a Chassis Cell. *Synthetic and Systems Biotechnology*, 5(4), 245-251.
- Yadav, J. K., & Prakash, V. (2011). Stabilization of α -Amylase, the Key Enzyme in Carbohydrates Properties Alterations, at Low pH. *International Journal of Food Properties*, 14(6), 1182-1196.
- Yousefi, N., & Abbasi, S. (2022). Food Proteins: Solubility & Thermal Stability Improvement Techniques. *Food Chemistry Advances*, 100090.
- Yuniati, R., Nugroho, T. T., & Puspita, F. (2015). Uji Aktivitas Enzim Protease dari Isolat *Bacillus sp.* Galur Lokal Riau. *Jurnal Online Mahasiswa Bidang Matematika dan Ilmu Pengetahuan Alam*, 2(1), 116-122.

- Yusra, Y., & Efendi, Y. (2019). Kemampuan *Bacillus subtilis* VITNJ1 dari Saluran Pencernaan Ikan Nila dalam Memproduksi Enzim Protease. *Jurnal Riset Akuakultur*, 14(2), 87-93.
- Zhang, X., Shuai, Y., Tao, H., Li, C., & He, L. (2021). Novel Method for the Quantitative Analysis of Protease Activity: The Casein Plate Method and Its Applications. *ACS omega*, 6(5), 3675-3680.
- Zhu, C. Z., Zhang, W. G., Zhou, G. H., Xu, X. L., Kang, Z. L., & Yin, Y. (2013). Isolation and Identification of Antioxidant Peptides from Jinhua Ham. *Journal of Agricultural and Food Chemistry*, 61(6), 1265-1271.
- Zhu, Z., Yang, J., Huang, T., Bassey, A. P., Huang, M., & Huang, J. (2023). The generation and application of antioxidant peptides derived from meat protein: a review. *Food Science of Animal Products*. 1 (2023) 9240005
- Zulaikhah, S. T. (2017). The Role of Antioxidant to Prevent Free Radicals in the Body. *Sains Medika*, 8(1), 39-45.

